IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Withdrawn): Plant protein with repeated WD40 motifs, characterized in that it belongs to the FZR subfamily.

Claim 2 (Withdrawn): Protein according to Claim 1, characterized in that it exhibits at least 45%, and preferably at least 55%, identity with the polypeptide having the sequence SEQ ID No. 2 or at least 60% and preferably at least 70% similarity with the polypeptide having the sequence SEQ ID No. 2.

Claims 3-7 (Canceled).

Claim 8 (Withdrawn, Currently Amended): A method ~~Use of a protein according to either of Claims 1 and 2, or of a nucleic acid sequence according to Claim 1~~ for regulating the differentiation and the proliferation of plant cells comprising administering the nucleic acid of Claim 1.

Claim 9 (Withdrawn, Currently Amended): The method of Claim 8, wherein ~~Use according to Claim 8, characterized in that the said protein or the~~ said nucleic acid sequence ~~is used to~~ promotes endoploidy in the cells of a plant or of a plant tissue.

Claim 10 (Withdrawn, Currently Amended): ~~Use according to~~ The method of Claim 8, ~~characterized in that the said protein or the~~ wherein said nucleic acid sequence ~~is used to~~ promotes the *in vitro* regeneration of plants from calli in culture.

Claim 11 (Withdrawn, Currently Amended): A method ~~Use of a protein of the FZR subfamily or of a nucleic acid sequence encoding all or part of the said protein, or its complementary sequence,~~ for regulating the differentiation and the proliferation of plant cells, wherein said nucleic acid encodes all or part of ~~Use of~~ a protein of the FZR subfamily ~~or of a nucleic acid sequence encoding all or part of the said protein~~, or its complementary sequence.

Claim 12 (Currently Amended): An isolated or purified nucleic acid comprising:

(a) SEQ ID NO: 1, or a fragment thereof that encodes a polypeptide that comprises WD-40 repeats and that inhibits mitosis and induces endoreplication ~~regulates plants differentiation or endoreplication~~ , or

(b) a sequence that hybridizes to the full-length complement of the coding portion of SEQ ID NO: 1 under stringent conditions and that encodes a polypeptide that comprises WD-40 repeats and that ~~regulates plant differentiation or endoreplication~~ inhibits mitosis and induces endoreplication,

[~~(c) an antisense sequence that hybridizes to SEQ ID NO: 1 under stringent conditions and that inhibits the expression of a polypeptide [that comprises WD-40 repeats and that regulates plant differentiation or endoreplication;~~]

wherein stringent conditions in (b) comprise washing in ~~2X~~ 0.5X SSC at 65°C.

Claim 13 (Previously Presented): The nucleic acid of Claim 12 that comprises SEQ ID NO: 1 or a fragment thereof.

Claim 14 (Previously Presented): The nucleic acid of Claim 12 that hybridizes to the complement of SEQ ID NO: 1 under stringent conditions.

Claim 15 (Currently Amended): The nucleic acid of Claim 12, [~~that hybridizes to SEQ ID NO: 1 under stringent conditions~~] which encodes the polypeptide of SEQ ID NO: 2 or a fragment thereof which comprises WD-40 repeats and that inhibits mitosis and induces endoreplication.

Claim 16 (Currently Amended): The nucleic acid of Claim 12 that encodes a protein that is at least 70% similar to the CCS52Ms protein, wherein similarity is determined using the BLAST program.

Claim 17 (Previously Presented): The nucleic acid of Claim 12 that encodes the CCS52Ms protein.

Claim 18 (Currently Amended): The nucleic acid of Claim 12 that encodes a protein that is at least 70% similar to the CCS52Mt protein, wherein similarity is determined using the BLAST program.

Claim 19 (Previously Presented): The nucleic acid of Claim 12 that encodes the CCS52Mst protein.

Claim 20 (Previously Presented): The nucleic acid of Claim 12 that is isolated from a plant.

Claim 21 (Previously Presented): A vector comprising the nucleic acid of Claim 12.

Claim 22 (Previously Presented): The vector of Claim 21, wherein said nucleic acid is placed under the control of a promoter.

Claim 23 (Previously Presented): The vector of Claim 22, wherein said promoter is an inducible promoter, a constitutive promoter, a tissue-specific promoter or an ubiquitous promoter.

Claim 24 (Previously Presented): The vector of Claim 22, wherein said promoter is an inducible promoter.

Claim 25 (Previously Presented): The vector of Claim 22, wherein said promoter is a tissue specific promoter.

Claim 26 (Previously Presented): A host cell comprising the nucleic acid of Claim 12.

Claim 27 (Previously Presented): A plant cell that comprises the nucleic acid of Claim 12.

Claim 28 (Previously Presented): A transgenic plant comprising the nucleic acid of Claim 12.

Claim 29 (Cancelled).

Claim 30 (New): A nucleic acid that hybridizes to SEQ ID NO: 1 under stringent conditions, wherein stringent conditions comprise washing in 0.5X SSC at 65°C.

Claim 31 (New): The nucleic acid of Claim 30 that inhibits the expression of a polypeptide that comprises WD-40 repeats and that inhibits mitosis and induces endoreplication.

Claim 32 (New): A vector comprising the nucleic acid of Claim 30.

Claim 33 (New): The vector of Claim 32, wherein said nucleic acid is placed under the control of a promoter.

Claim 34 (New): The vector of Claim 32, wherein said promoter is an inducible promoter, a constitutive promoter, a tissue-specific promoter or an ubiquitous promoter.

Claim 35 (New): The vector of Claim 32, wherein said promoter is an inducible promoter.

Claim 36 (New): The vector of Claim 32, wherein said promoter is a tissue specific promoter.

Claim 37 (New): A host cell comprising the nucleic acid of Claim 32.

Claim 38 (New): A plant cell that comprises the nucleic acid of Claim 32.

Claim 39 (New): A transgenic plant comprising the nucleic acid of Claim 32.

Claim 40 (New): The nucleic acid of Claim 12, wherein said sequence encodes a protein comprising amino acid residues 51-55 and 57 of SEQ ID NO: 2.

Claim 41 (New): The nucleic acid of Claim 12, wherein said sequence encodes a protein comprising amino acid residues 81, 84, 85, 90 and 91 of SEQ ID NO: 2.